### **FOREWORD**

This guide was developed for San Antonio Missions National Historic Park by the South Texas Rural Collaborative for Excellence in Science Teaching (RCEST) at Our Lady of the Lake University. These units were developed and have been field-tested by classroom teachers.

### **Purpose:**

The guide will assist teachers to maximize the benefits of a trip to San Antonio Missions National Historical Park. Interdisciplinary activities for middle school provide an integrated focus using water as a theme.

### **Topics:**

The units include *Mission Settlement, Riparian Community, Water Quality,* and *Water Distribution.*The teacher may pick and choose the units that are best suited for the class. It is recommend that the students always start with the *Mission Settlement* unit. They will gain have an understanding of the history and culture of the Spanish missions before moving to science and math topics.

#### Features:

- ◆ Activities are correlated with the Texas Essential Knowledge and Skills (TEKS) in science, mathematics, social studies, and language arts.
- ♦ A graphic organizer links the activities in a web, providing coherence. This integrated learning web was used to develop the curriculum, instruction, and assessment.
- ◆ The instructional method includes pre-visit, visit, and post-visit activities, utilizing the 5E instructional model adapted from the Biological Sciences Curriculum Study.

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National Park Foundation
San Antonio Missions National Historical Park
Los Compadres de San Antonio Missions National Historical Park
Southwest Parks and Monuments Association
Our Lady of the Lake University

#### **HOW TO USE THIS GUIDE**

**Water and the San Antonio Missions** supports many state curriculum requirements. Specifically, all activities are correlated with Texas Essential Knowledge and Skills (TEKS) in science, mathematics, social studies, and language arts.

The Integrated Learning Web lays out the curriculum visually. There are four (4) strands, or units: *Mission Settlement, Riparian Community, Water Quality,* and *Water Distribution*. The units are connected by six (6) threads that are common denominators in studies today: *Systems, Human Presence, Change Over Time, Energy, Structure,* and *Environmental Interaction*. You will notice that our "web" is not complete. Future plans call for completion the remainder.

The 5E Instructional Model was the choice of instruction method for *Water and the San Antonio Missions*. This method allows the teacher to guide the student step-by-step through the discovery process without compromising basic information. Review the five (5) stages of Engagement, Exploration, Explanation, Elaboration, and Evaluation. The model also lists expected teacher behaviors and student behaviors.

General Rubrics are used throughout the units in the evaluation of the student. They can also be used as a self-evaluation by the teacher of his or her instruction. The Peer Evaluation form is included.

The video *Gente de Razón* is availible from San Antonio Missions National Historical Park for loan. It can also be purchased through the Southwest Parks and Monuments Association Bookstore, located at Mission San José.

Each unit lesson is organized in the following format:

Unit and Lesson Number

Information on Grade

Subject Duration

Texas Essentional Knowledge and Skills (TEKS)

Charting the Course EssentialTerms

Big Idea Objectives

Making Connections

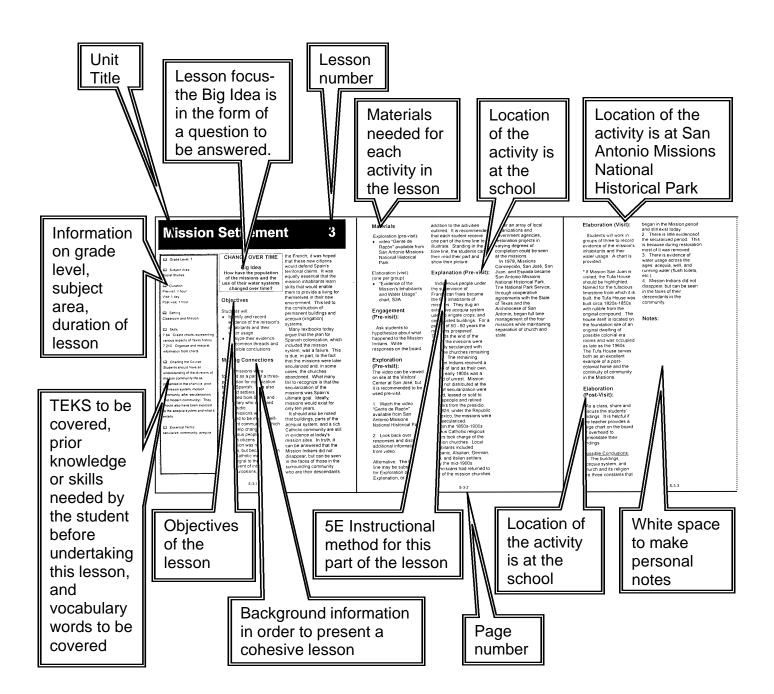
Materials

5E Instruction\* Engagement

Exploration Explanation Elaboration Evaluation

Blacklines or Worksheets

<sup>\*</sup> All lessons have pre-visit, visit, and post-visit activities; however not all parts of the 5E Instruction will have these componets



#### REPRODUCTION/PHOTOCOPYING POLICY

All materials contained in this curriculum and its appendices may be duplicated for any instructional or educational purposes.

### **5-E INSTRUCTIONAL MODEL**

**Engagement:** Mentally engages and motivates students with an event or a question.

**Exploration:** Hands-on/minds-on activities.

**Explanation:** Helps students to provide reasonable solutions and answers.

Encourages them to listen and to further question.

**Elaboration:** Events that help students apply the newly learned concept. Activities are used

as vehicles to probe other unique situations.

Evaluation: Students demonstrate an understanding of the concept or skill. Events help

students to continue to elaborate on their understanding.

Stag	Dumoso	Tanahar Dahayiara	Student Dehaviors
е	Purpose	Teacher Behaviors	Student Behaviors
Engagement	The basic purpose of engagement is to help students make connections with what they know and can do.	<ul> <li>Motivates</li> <li>Creates interest</li> <li>"Taps into" what the students know or think they know about the topic</li> <li>Raises questions and encourages responses</li> </ul>	<ul> <li>Asks questions</li> <li>Demonstrates interest in the lesson</li> <li>Examples: Puzzles, Current Issues, Discrepant Events, Situational Events, Mysteries, Movies, Poems</li> </ul>
Exploration	The basic purpose of exploration is to help students by providing a set of common experiences from which they can help each other make sense of the concept.	<ul> <li>Acts as a facilitator</li> <li>Observes and listens to students as they interact</li> <li>Asks good inquiry-oriented questions</li> <li>Provides time for students to think and to reflect</li> <li>Encourages cooperative learning</li> </ul>	<ul> <li>Explores within the limits of the activity</li> <li>Conducts activities, predicts, and forms hypotheses</li> <li>Becomes a good listener</li> <li>Shares ideas and suspends judgement</li> <li>Discusses tentative alternatives</li> </ul>
Explanation	The basic purpose of explanation is to help students describe what they have experienced and to explain how this new information fits in with what they already know.	<ul> <li>Encourages the student to explain their observations and findings in their own words</li> <li>Provides definitions, new words, and explanations</li> <li>Listens and builds upon discussion from students</li> <li>Asks for clarification and justification</li> <li>Accepts all reasonable responses</li> </ul>	<ul> <li>Explains, listens, and questions</li> <li>Uses previous observations and findings</li> <li>Provides reasonable responses to questions</li> <li>Interacts in a positive, supportive manner</li> </ul>

The basic purpose of elaboration is to help students apply the concept to different situations.

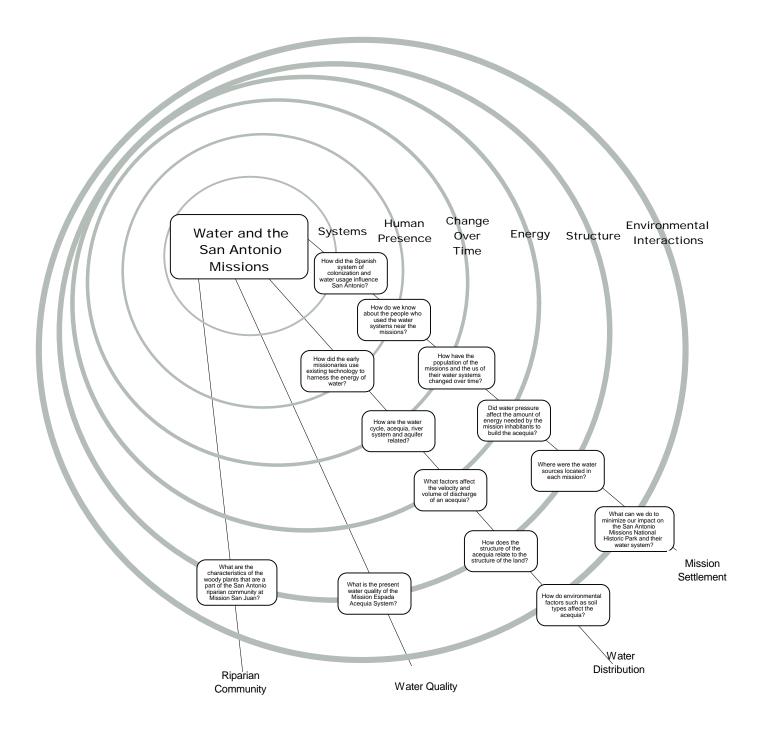
- Uses previously learned information as a vehicle to enhance additional learning in science or in other areas of the curriculum
- Encourages students to apply or extend the new concepts and skills
- Encourages students to use terms and definitions provided previously

- Applies new terms and definitions
- Uses previous information to probe, to ask questions, and to make reasonable judgements
- Provides reasonable conclusions from evidence
- Records observations and explanations

The basic purpose of evaluation is to help students extend their understanding and to demonstrate knowledge of concepts and skills.

- Observes behaviors of students as they explore and apply new concepts and skills
- Assesses students' knowledge and skills
- Asks open-ended questions

 Demonstrates an understanding or knowledge of concepts and skills



### **General Rubric 1**

### Score point 4 - Exceeds standard

Response may contain some minor flaws but clearly exceeds the standard. All requirements are met. Explanation contains details and all significant facts. Opposing views or alternate hypotheses are given and substantially argued. All grammatical errors present do not distract from presentation. All observations and facts are accurate and precise. Given inferences are supported by facts or data. Analogies are appropriate and supported. Synthesis of ideas is apparent.

### Score point 3 – Meets standard

Response contains several minor flaws, but meets the standard. Most requirements are met. Explanation may lack some significant details or facts. Opposing views or alternate hypotheses are given, but some major arguments may be missing. Information is generally concise, relevant but may be difficult to follow. Grammatical errors may distract from presentation. Most observations and factual information are accurate and precise. Inferences are given, but may not be supported by facts or data. Analogies are appropriate, but may not be supported. There is some synthesis of ideas.

### Score point 2 – Falls just short of standard

Response contains a serious flaw and falls just short of standard. Some requirements are met. Explanation may lack numerous details or is missing most significant facts. Opposing views or alternate hypotheses are given, but few if any arguments are given. Some information is relevant. Rambling or difficult organization may be present. Too many grammatical errors may distract significantly from presentation. Some observations and facts are accurate and precise. Inferences are given, but the facts or data contradict them. Analogies are not appropriate. Synthesis of ideas is attempted, but unsuccessful.

### Score point 1 – Misses standard

Response is attempted, but seriously flawed and misses the standard. Few requirements may be met. Explanation is missing both details and all significant facts. Opposing views or alternate hypotheses are not present. Little if any information is relevant. Rambling style or total disorganization may be present. Grammatical errors may make the presentation almost impossible to follow. Few if any observations and facts are accurate and precise. Inferences are not given. Analogies are not attempted.

#### Score point 0 – Blank or unscorable

Designed by Virginia Malone

## **General Rubric 2**

Score	Thoroughness	Clarity	Accuracy	Logic
4 Response may contain some minor flaws but clearly exceeds the standard.	All requirements are met. Explanation contains details and all significant facts. Opposing views or alternate hypothesis are given and substantially argued.	All information is concise, relevant and presented in an organized fashion. Any grammatical errors present do not distract from presentation.	All observations and facts are accurate and precise.	Given inferences are supported by facts of data. Analogies are appropriate and supported. Original synthesis of ideas is apparent.
Response contains several minor flaws, but meets the standard.	Most requirements are met. Explanation may lack some significant details or facts. Opposing views or alternate hypotheses are given, but some major arguments may be missing.	Information is generally concise, relevant but may be somewhat difficult to follow. Too many grammatical errors may distract from presentation.	Most observations and factual information are accurate and precise.	Inferences are given, but may not be supported by facts or data. Analogies are appropriate, but may not be supported. There is some original synthesis of ideas.
2 Response contains a serious flaw and falls short of standard.	Some requirements are met. Explanation may lack numerous details or is missing most significant facts. Opposing views or alternate hypotheses are given, but few if any arguments are given.	Some information is relevant. Rambling or difficult organization may be present. Too many grammatical errors may distract significantly from presentation.	Some observations and facts are accurate and precise.	Inferences are given, but the facts or data contradict them. Analogies are not appropriate. Synthesis of ideas is attempted, but unsuccessful.
1 Response is attempted, but seriously flawed and misses the standard.	Few requirements may be met. Explanation is missing both details and all significant facts. Opposing views or alternate hypotheses are not present.	Little if any information is relevant. Rambling style or total disorganization may be present. Grammatical errors may make the presentation almost impossible to follow.	Few if any observations and facts are accurate and precise.	Inferences are not given. Analogies or synthesis of ideas are not attempted.

Designed by Virginia Malone

# **MISSIONS OF SAN ANTONIO TIMELINE**

1690	San Francisco de los Tejas was the first mission to be founded in Texas.
1690s	First Spanish expeditions for missions and presidios in eastern Tejas encounter a Coahuiltecan Indian encampment along the <i>Yanaguana</i> , now named the San Antonio River, near present Mission San Juan.
1718	Reestablishment of the failed mission, San Francisco Solano, at San Juan Bautista complex on the Río Grande, and renamed San Antonio de Valero. The founding of the presidio of San Antonio de Béxar for protection of the roads used for military movement, trade, and to supply of missions, running from the west (San Juan Bautista) to the east near Louisiana, and serving as a buffer against the French.
1719	East Texas temporarily abandoned when French invade from Louisiana. Soldiers and missionaries retreat to San Antonio River area near Valero.
1720	Mission San José y San Miguel de Aguayo founded along the San Antonio River, south of Valero. The only mission to be originally founded on this river. Established though efforts of Franciscan missionary refugee from East Texas, Fr. Antonio Margil de Jesús, and the patronage of the governor of the Province of Coahuila y Tejas, the Marqués de San Miguel de Aguayo
1721	Soldiers and many missionaries return to East Texas to reestablish missions.
1722 – 26	Short-lived "sixth mission" of San Francisco de Nájera, in reality a sub-mission for San Antonio de Valero, is located near present-day Mission Concepción.
1727	Military inspection of the frontier forts by General Pedro de Rivera resulted in the closing and removal of several presidios in East Texas. Missionaries at three of the missions ask for permission to relocate since they are now vulnerable to enemy Indian attack.

1730	Missions of San José de los Nazonis, San Francisco de los Neches (originally San
	Francisco de los Tejas), and Concepción transferred to the Colorado River area in the
	vicinity of modern-day Austin, Texas.

San José de los Nazonis, San Francisco de los Neches, and Concepción relocated to their present locations on San Antonio River area with name changes. San José de los Nazonis became Mission San Juan Capistrano, San Francisco de los Neches became Mission San Francisco de la Espada, and Concepción became Mission Nuestra Señora de la Purísma Concepción de Acuña. Sixteen families from the Canary Islands arrived to establish the civilian community of Villa de San Fernando

**1740s – 1780s** Permanent stone structures built at each mission, including churches.

1740s Acequia or irrigation systems for each mission's farmlands constructed including Espada's dam and the aqueduct across Piedras Creek.

Mill outside the north wall at Mission San José built to grind wheat.

San Antonio de Valero fully secularized, no longer a mission, and is used for military purposes.

The four other missions are partially secularized with the missionaries remaining as the churches' priests.

1810 – 1821 Period of disturbance and unrest; Mexico fights for independence from Spain. Mission lands gradually rented, leased, and sold to retired soldiers and townspeople. Mission buildings are used for civilian housing and for troops. Later damaged and used for stone salvage to construct other buildings.

1824 Remaining four missions are fully secularized under the Republic of Mexico.

Siege of the Alamo (Mission San Antonio de Valero) during the Texas war for independence from Mexico.

**1850s – 1900s** Missions under various religious orders:

San José -- Benedictines

Concepción -- Brothers of St. Mary

San Juan and Espada -- Father Bouchu, secular priest

**Early 1900s** St. John's Seminary includes church and some of the grounds of Mission Concepción.

San Juan and Espada -- Claretians

Daughters of the Republic of Texas save Alamo (Mission San Antonio de Valero) from complete destruction and begin to oversee its care as a Texas State Historic Site.

**1920s – 1950s** San Juan and Espada -- Redemptionists

San José -- Diocesan priests

1930s – 1960s Franciscans return to the missions starting with San José.

1920s – 1940s Restoration and rededication of church, granary, mill, and walls at Mission San José.

1941 Mission San José declared a Texas State Historic Site and a National Historic Site.

**1940s – 1978** Mission San José becomes a state park.

1960s Restoration at San Juan and Espada. Espada Aqueduct declared a National Historic

Landmark.

1978 November 10. Legislation signed into law by President Jimmy Carter creating San Antonio

Missions National Historical Park.

**Early 1980s** National Park Service begins operating San Antonio Missions National Historical Park

according to establishing legislation and Cooperative Agreements with the State of Texas

and the Archdiocese of San Antonio.

1995	Transfer of a 99.2-acre site of Rancho de las Cabras, mission ranch for Espada, at
	Floresville, Texas, to the National Park Service and San Antonio Missions National
	Historical Park. Planning for Rancho de las Cabras begins with communities in Floresville
	and San Antonio.

May 20. Dedication and opening of 12,000-square foot park visitors' center at Mission San José.

**1998-** Preservation of historic missions continues.